

Stratton Student Center to be renewed beginning sometime in early 2023

*The student center will be shut down starting
early May 2023 and throughout the summer*

By Kristina Chen
PUBLISHER

Stratton Student Center renewal plans “are on the verge” of receiving approval and construction will begin early next year, Senior Associate Dean for Diversity and Community Involvement Gustavo Burkett wrote in a Nov. 9 email to occupants of the student center.

According to Burkett’s email, “infrastructure and preparatory work” for the renewal will begin January 2023. Construction will take place for the Coffeehouse Lounge on the third floor, restrooms, and on mechanical/infrastructure systems in February and March.

After Campus Preview Weekend, April 13–16, the student center will be closed to the public. Student organization leaders and retail tenants will still be able to access the building in order to prepare spaces before the student center is fully shutdown in early May.

The student center will be fully shut down beginning in early May and throughout the summer for intensive construction. During this time, no public or tenant access will be allowed in the building.

In mid-August, tenants will be able to ramp up their activities in preparation for re-

opening the student center fully to the public. The student center will reopen fully in late August once students have returned to campus.

The student center renewal project team is providing opportunities for community members to learn more about the renovations and to learn how the team will “mitigate disruptions caused by the building’s temporary closure,” Burkett wrote. The team will also reach out to organizations who have reserved space during the construction period to discuss alternatives.

The goal of the student center renewal is to create a center for wellbeing on campus. The renovations are expected to improve design coherence of the building, update the building’s infrastructure, include more flexible-use spaces, and provide a welcoming environment to all. A new Wellbeing Lab will also be added to the building, replacing the Coffeehouse Lounge.

A community information session and furniture fair will be held Nov. 17 from 11 a.m.–2 p.m. Additionally, community members can reach the project team at w20updates@mit.edu or submit comments through an online form.



CADY BORONKAY—THE TECH

MIT students vote for the 2022 Midterm Elections within Kresge Auditorium and enjoy some cupcakes as a reward, Tuesday.

MIT alumni able to receive IDs to access campus buildings using Tim Tickets app or Atlas center

*Provost Barnhart and Executive VP and Treasurer Shor
sent survey on campus access for community feedback
on multiple public building entrance policy scenarios*

By Kristina Chen
PUBLISHER

MIT alumni have been granted access to campus buildings via a digital or physical alumni MIT ID card. This new policy has been in place since the week of Oct. 17.

In addition to access to non-residential buildings on campus, the ID provides alumni free entry at the MIT Museum, along with one free guest, and privileges at the Zesiger Sports and Fitness Center and MIT Libraries.

Alumni can receive their alumni ID digitally or physically. To receive a digital ID, alumni must login to the Tim Tickets mobile app with their Infinite Connection credentials. After logging in, alumni can activate their mobile ID, which serves as a digital ID card and can be used in conjunction with a mobile wallet app.

Alumni can also receive a physi-

cal ID card by printing one from self-service kiosks across campus by using a QR code located in the Tim Tickets app. Alumni that wish to receive a physical ID card without using the Tim Tickets app may contact the Atlas Service Center via email, phone, or in-person services to print a physical card.

For alumni that are current students, faculty, or staff and that have active Kerberos IDs, they may receive an alumni ID by activating their access in COVID Pass in the Atlas app.

Alumni that have active Kerberos IDs but are not current students or employees should contact the MIT Service Desk or specific building access approvers.

Provost Cynthia Barnhart PhD '88 and Executive Vice President and Treasurer Glen Shor invited MIT community members to participate in a survey on campus access Oct. 4–14. The survey was meant to

help MIT examine its policies with respect to building access and included questions soliciting feedback on community preferences and safety concerns for a variety of building access scenarios. The scenarios included 24/7 general public access to all non-residential buildings as well as general public access to all non-residential buildings during limited hours.

Building access policies for non-MIT ID holders remain in place, with most campus buildings accessible only via MIT ID. Visitors may only enter buildings when escorted by an MIT ID holder or when using Tim Tickets.

Additionally, nine buildings are open to the general public, including the first floors of the Ray and Maria Stata Center and Koch Institute, the List Visual Arts Center, the MIT Museum, the MIT Welcome Center, the Stratton Student Center, and the Zesiger Sports and Fitness Center.



KATE LU—THE TECH

OrigamiMIT Convention 2022 attendees view works on display at the convention’s origami exhibition, Saturday.

IN SHORT

Nov. 11 is **Veterans Day**. No classes will take place.

Nov. 15 is the deadline for doctoral students to **submit application for spring term non-resident status**.

All students are required to **receive flu vaccines before Nov.**

18 in order to access buildings and register for Spring 2023 and IAP.

Drop Date is Nov. 23.

Thanksgiving Break is Nov. 24–25.

Interested in **joining The Tech**? Email join@tech.mit.edu.

Send news and tips to news@tech.mit.edu.

BLUEPRINT LABS

Improving the efficiency of kidney exchange.
SCIENCE, p. 5

SUSTAINABILITY

The planet’s future is also your future. **OPINION, p. 6**

CLIMATE CHANGE

Fossil fuel companies are misleading the public. **OPINION, p. 7**

FREE SPEECH

An illegitimate working group. **OPINION, p. 7**

LAB SAFETY

A near-death experience. **OPINION, p. 8**



ITALIAN FOOD

Carmelina’s checks all the boxes. **ARTS, p. 4**

SECTIONS

Fun Page3
Arts4
Science5
Opinion6

WEATHER

Elephants in Egypt

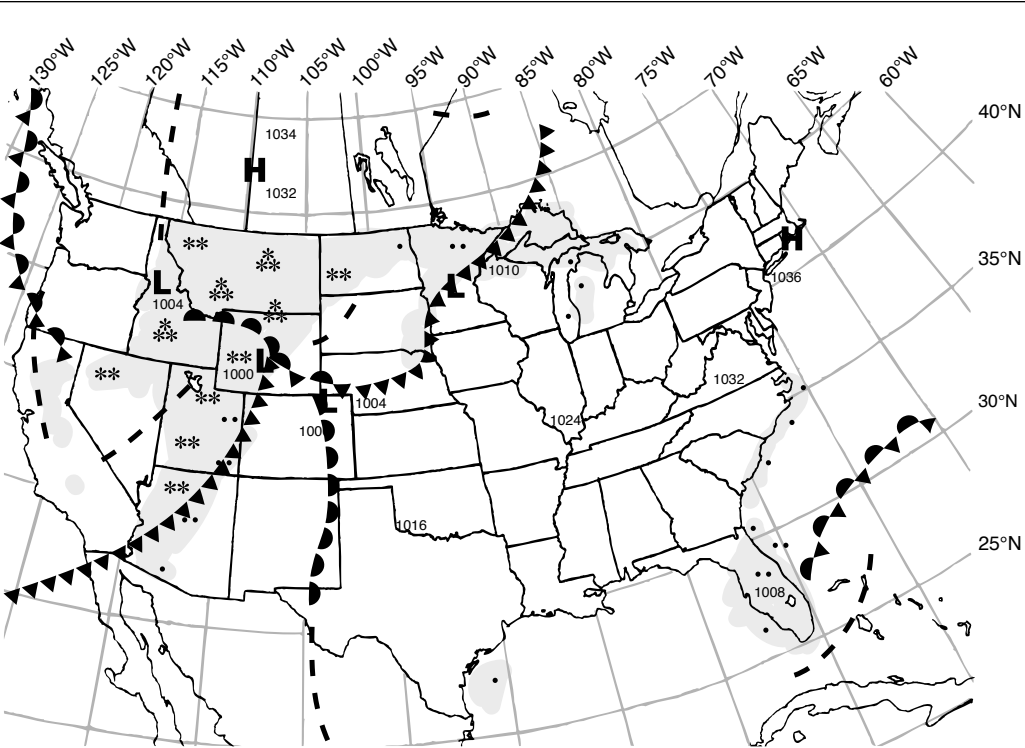
By Amena Khatun
STAFF METEOROLOGIST

The Blood Moon sighting on Tuesday started the week with a beautiful natural spectacle that may have reset the abnormally warm period of last week. This week is expected to return to the cold and chill typical of November. Tropical storm Nicole has attained hurricane status and is expected to make landfall early Thursday, bringing heavy rain and strong winds to the northeast on the weekend. Not only that but the first blizzard of the season is also forecasted to hit the Northern

















Great Plains and Minnesota on Friday. The elephant in the room causing these extremes in weather is climate change, and this week Egypt is hosting COP27. Global leaders are gathered to discuss ways to fund and achieve the ambitious goals set at COP26, such as global net zero by mid-century and 1.5°C targets for global warming. One of the goals is to get wealthy nations to pay “loss and damage” and compensate low- and middle-income countries with far fewer greenhouse gas emissions for their disproportionate share in the impact of climate change. Will they?

Extended Forecast

Today (Thursday morning): Sunny. High around 64°F (18°C). Southwest winds 10–15 mph.
Tonight (Thursday night): Partly cloudy. Low around 53°F (12°C). Southwest winds 9–13 mph.
Tomorrow: Cloudy with a chance of rain (30%). High around 68°F (20°C) and low around 63°F (17°C). South winds 7–10 mph
Saturday: Rainy (60%). High around 70°F (21°C) and low around 46°F (8°C). West winds 20–36 mph.
Sunday: Mostly cloudy. High around 51°F (11°C) and low around 36°F (2°C). West winds 6–10 mph.



Situation for Noon Eastern Time, Thursday, November 10, 2022

Weather Systems	Weather Fronts		Precipitation Symbols		Other Symbols
H High Pressure		Trough			 Fog
L Low Pressure		Warm Front			 Thunderstorm
 Hurricane		Cold Front			 Haze
		Stationary Front			Compiled by MIT Meteorology Staff and <i>The Tech</i>



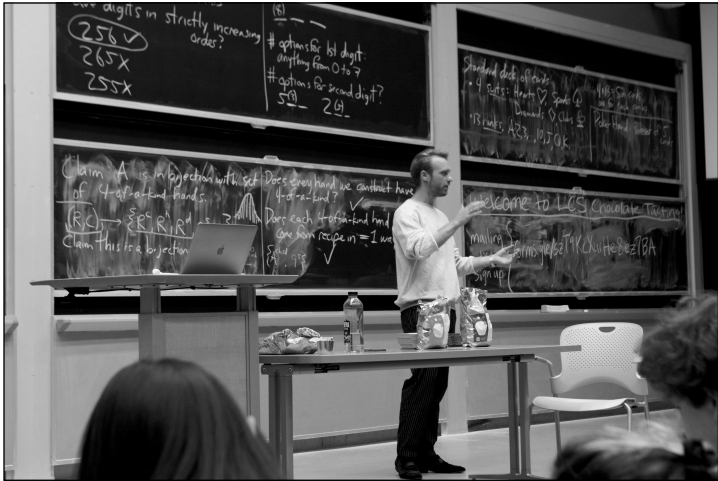
MAXWELL YUN—THE TECH

Students enjoy traditional Chinese food at Empire Garden Restaurant at the CSC banquet, Saturday.



MELISSA JIMENEZ CAMEJO—THE TECH

MIT Shakespeare Ensemble puts on their final showing of As You Like It this past weekend.



ALEXA SIMAO—THE TECH

Pastry chef Ted Steinebach gives a talk in 26-100 on chocolate and cacao - complete with savory samples - for the Laboratory for Chocolate Science, Tuesday.

Be the first to know about what’s happening at MIT.

The Tech is looking for news writers to...

interview students,
administrators, and
faculty...

cover new
campus policy...

and find out how MIT
connects to the rest of
the world.

e-mail join@tech.mit.edu and say you want to write news.

We get you the tickets.
You get us the review.

ARTS at  Established 1881

events • movies • theater • concerts
music • books • restaurants • interviews

join@the-tech.mit.edu



Cinnamon Raisin Swirl

Solution, page 8

	6				8	4		5
		8	4			6		
4			1		7		8	
	2		5			3		
	7						6	
		1			3		5	
	8		6		1			9
		9			2	8		
2		6	9				3	

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

Crispy Rice

Solution, page 8

	9		1					
2			8		5	1	3	
	8			2				6
		2			9		1	
	1	3				8	4	
	7		5			3		
4				5			7	
	5	9	2		7			3
					6		5	

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

Illuminating

by Sally R. Stein

Solution, page 8

ACROSS

- 1 Meat in many omelets
- 4 __ vera (natural soother)
- 8 Trips around a running track
- 12 “Humpback” sea mammal
- 14 Washerful of laundry
- 15 Opera solo
- 16 Accountant’s inspection
- 17 Prefix meaning “against”
- 18 Appear to be
- 19 Theater usher’s illumination
- 21 Make simpler
- 22 Art drawn on skin
- 23 Fly high
- 25 Changed the color of
- 28 “Blue” award given at county fairs
- 32 __ yet (so far)
- 36 Part of a molecule
- 38 Walk out the door
- 39 Island near Oahu
- 40 Highway pathways
- 42 “That’s too bad”
- 43 Opening comment, for short
- 45 Sugar cube

- 46 Become liquid
- 47 The Sahara, for example
- 49 Tips of slippers
- 51 Have on, as clothes
- 53 Pass by, as time
- 58 Bounce back, as a sound
- 61 Dining room’s fancy overhead illumination
- 64 Indistinct image
- 65 Weighty book
- 66 Roadside eatery
- 67 “Upper” or “lower” bed
- 68 Notion
- 69 Nerdy types
- 70 Goes down, as the sun
- 71 Tenth of a dime
- 72 Conclude

DOWN

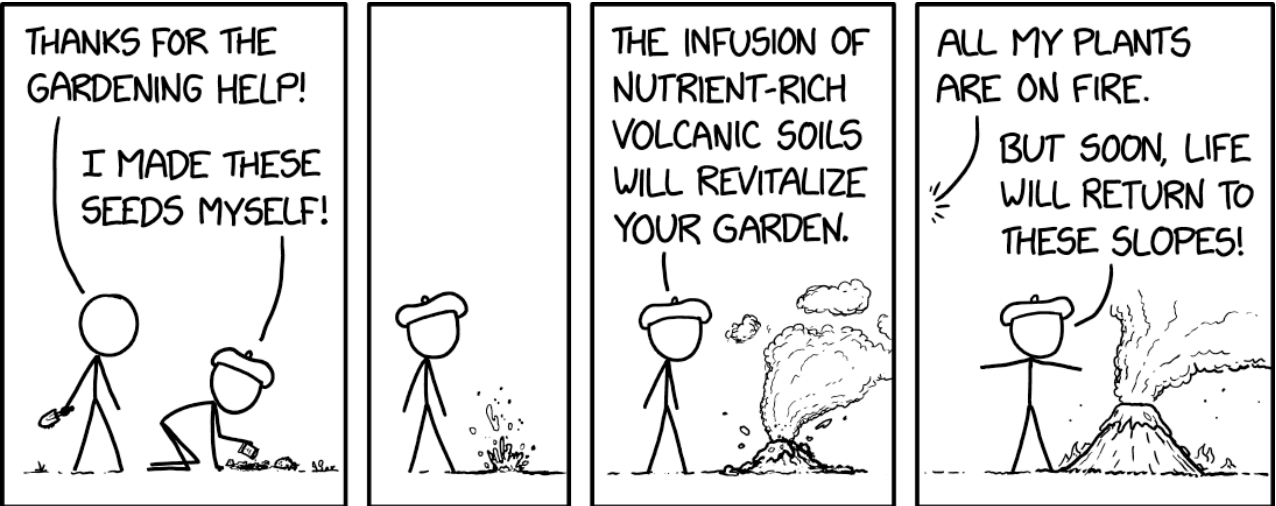
- 1 Did battle with
- 2 Roster of top celebrities
- 3 Systematic plan
- 4 Jai __ (fast-moving sport)
- 5 Lasting quite a while
- 6 Courtroom pledges
- 7 Newsroom executive

- 8 High-tech illumination for a speaker’s pointer
- 9 Neighborhood
- 10 Fruity desserts with a crust
- 11 Identical
- 12 Be carried in the air, as an aroma
- 13 Luau dance
- 20 Faithful
- 24 Feel under the weather
- 26 “And others” abbreviation
- 27 Pastry with a hole
- 29 Bundle of hay
- 30 Shaped like a 0
- 31 Home for baby birds
- 32 In the heart of
- 33 Sensible
- 34 Ins and __ (important details)
- 35 Illumination in the sky on July 4th
- 37 Office note
- 41 Drive too fast
- 44 Rock containing metal
- 48 Strategic maneuver
- 50 Heavy hammer

			1	2	3		4	5	6	7		8	9	10	11
12	13							14					15		
16							17						18		
19						20							21		
22									23		24				
					25		26	27		28			29	30	31
32	33	34	35			36			37		38				
39						40				41		42			
43				44		45						46			
47						48		49			50				
			51			52			53			54	55	56	57
58	59	60				61		62	63						
64						65					66				
67						68					69				
70						71					72				

- 52 Providence, __ Island
- 54 Visitor from another planet
- 55 Longed (for)
- 56 Play hide-and-__
- 57 Makes a mistake
- 58 Recedes, as the tide
- 59 Hint in a whodunit
- 60 Search for prey
- 62 Last word of a prayer
- 63 Having no clutter

[2695] Soil



You might want to bring your frost-sensitive plants in from the patio. The high-level aerosols may result in short-term cooling across the entire backyard.

Blueprint Labs uses economic models to help form policy in healthcare, education, and the workforce

21 percent of kidneys are discarded in the U.S. annually [1]. Under the current kidney placement system, after an organ donor has passed away, kidney recipients are asked sequentially, according to a priority list, whether or not they will accept the kidney. Since kidney transplants are time sensitive, it is often difficult for transplant coordinators to contact recipients in time.

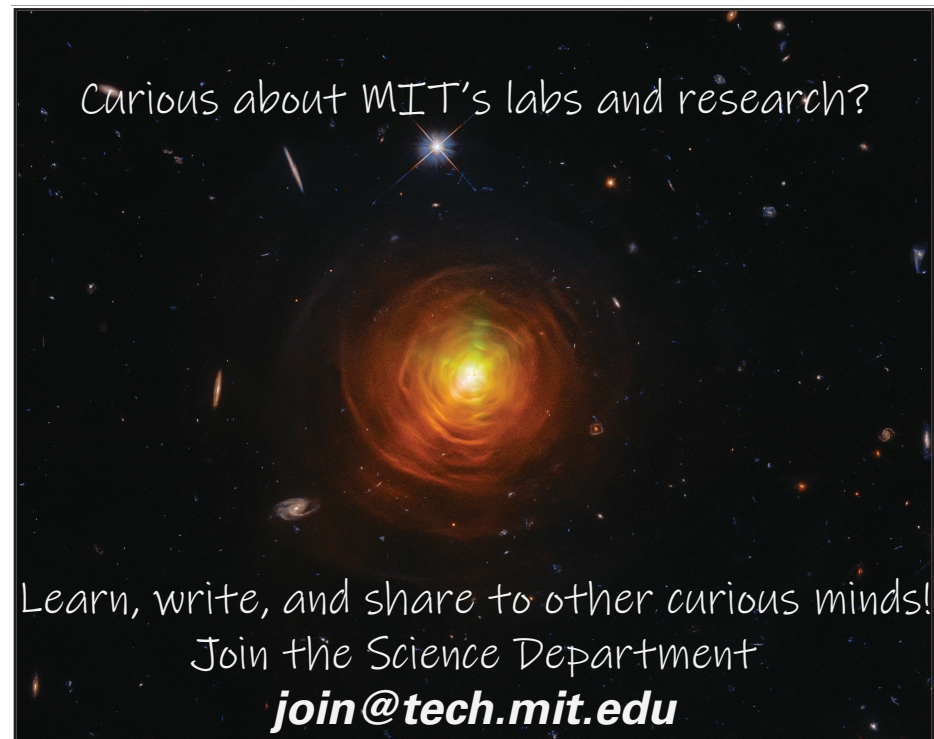
targeted manner,” said Nikhil Agarwal, a professor of economics and co-director of the group.

As is evident from both of these projects, Blueprint Labs works on two major research areas within data and economics: market design and research design. Market design focuses on how to efficiently and equitably allocate scarce resources, simi-

Yet Blueprint Labs' research extends far beyond healthcare. Using market and research design, the lab also conducts research with applications in education and the workforce. The lab primarily uses economic and statistical models to tackle problems in these areas. In education, Blueprint Labs has studied the impact of school busing and lottery admissions. In workforce research, the group has studied discrimination among U.S. employers and how AI technology impacts workers. It is this combination of topical interests and its economic toolkit that makes Blueprint Labs distinct from other research groups. "Blueprint Labs is a unique place. I cannot think of any other economics lab where this type of work is being done," said Agarwal.

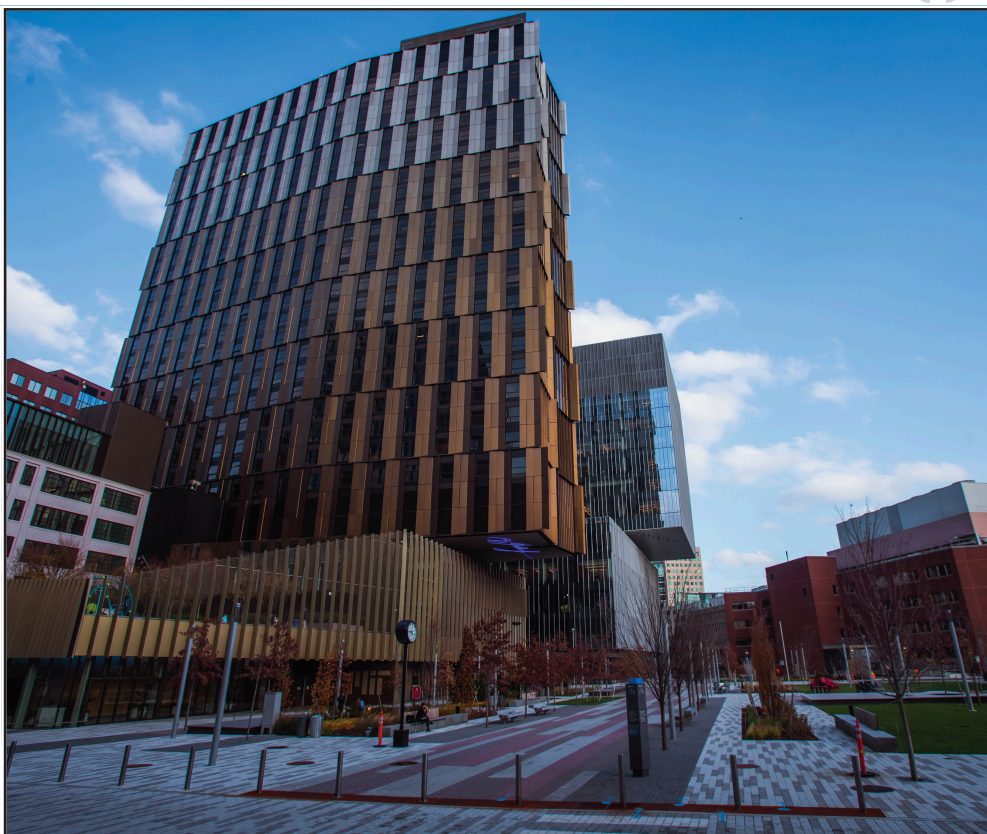
said Agarwal. Blueprint Labs hosts meetings between academics, practitioners, and policymakers to help improve policy and promote an open exchange of ideas. It is this collaboration with interdisciplinary groups that allows Blueprint Labs to have a more complete picture of its research areas beyond pure academia. "Evidence is part of the puzzle; it does not tell you everything that is necessary," said Agarwal. Facilitating these discussions between academics and practitioners is essential to making the models and recommendations developed by Blueprint Labs a reality. In line with its work in market and research design for education, the lab was also instrumental in organizing a summer school for international PhD students to collaboratively learn about market-design research.

While tackling problems across diverse fields and working to address issues in social policy, the glue that binds Blueprint Labs together is its economics and data background. Wielding this expertise, Blueprint Labs is working to approach policy issues from a unique, data-driven perspective. “There is no other place in the world that does this, in such a setting,” Agarwal said.



Curious about MIT's labs and research?

Learn, write, and share to other curious minds!
Join the Science Department
join@tech.mit.edu

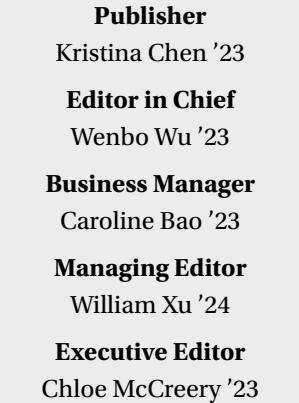


2022-2023 MIND & HAND BOOK



Massachusetts
Institute of
Technology





News Editors: Srinidhi Narayanan '24; **Staff:** Kylee Carden '23, Eva Ge '26, Alexander Tang '26, Eunice Zhang '26; **Meteorologists:** Trinity Manuelito '23, Phoebe Lin '24.

Editors: Arun Wongprommoon '23, Sydney Robinson '25; **Associate Editor:** Angelina Zheng '25; **Staff:** Yichi Zhang G, Katherine L. Pan '24, Grey Sarmiento '24, Pris Wasuwanich '24, Victoria Gao '25, Ellie Montemayor '26, Lindsay Reyes '26.

Editor: Laura Schmidt-Hong '23.

Editors: Mindy Long '23, Erika Yang '23;
Associate Editor: Anahita Srinivasan '25;
Staff: Mureji Fatunde G, Lani Lee G, Vyshnavi
 Vennelakanti G, Victoria Dzieciol '23, Jamie
 Fu '23, Nyssa Miller '23.

Editors: Maximo Machado '23, Cady Boronkay '24; **Associate Editor:** Maxwell Yun '21; **Staff:** Stephany Pang '22, Rila Shishido '23, Zoe Pasetsky '24, Farin Tavecchi '24, Amina Abdalla '25, Olivia Lee '25, Kate Lu '25, Alexa-Rae Simao '25, Michelle Xiang '26, Michele Gabriele.

Editor: Paige Bright '24; **Staff:** Vivian Hir '25.

Copy Chief: Caitlin Fukumoto '24; **Associate**
Copy Chief: Jyotsna Nair '25; **Staff:** Michael V.
Bhopaul '24, Noura Attili '26, Sabine Chu '26,
Geoffrey Enwere '26.

Advertising Manager: Alvin Chen '25;
Operations Manager: Jamil Dellawar '24; **Staff:**
 Julia Situ '23, Christina Lee '25.

Director: Anirudh Rahul '24.

Staff: Frankie Schulte '24.

Paul E. Schindler, Jr. '74, Barry S. Surman '84,
Deborah A. Levinson '91, Saul Blumenthal '98,
Daniel Ryan Bersak '02, Eric J. Cholankeri '02,
Marissa Vogn '06, Austin Chu '08, Michael
McGraw-Herdge '08, Marie Y. Thibault '08,
Angeline Wang '09, Jeff Guo '11, Anne Cai '14,
Jessica L. Wass '14, Bruno Faviero '15, Kali
Xu '15, Leon Lin '16, Kath Xu '16, Lenny Martinez
Dominguez '17, Charlie J. Moore '17, William
Navarre '17, Emma Bingham '19, Nafisa Syed '19,
Áron Ricardo Perez-Lopez '20, Nathan Liang '21,
Joanna Lin '21, B. D. Colen.

Senior Editors: Ben Kettle '22.

Editors: Arun Wongprommoon '23, Sydney Robinson '25; **Staff:** Pris Wasuwanich '24, Victoria Gao '25, Lindsay Reyes '26, Eunice Zhang '26; **Copy Editors:** Caitlin Fukumoto '24, Jyotsna Nair '25, Yifan Wang '24, Noura Attili '26, Sabine Chu '26, Geoffrey Enwere '26.

GUEST COLUMN

Cambridge's own Green New Deal

How Cambridge is working to build a more sustainable future

As we barrel toward irreversible damage to our climate, it becomes more and more critical to lower emissions and make way for a clean energy future. Over the summer, Congress finally passed legislation, referred to as the "Inflation Reduction Act," in order to help spur electrification and renewable energy development. However, as Cambridge City Councilor Quinton Zondervan '95 said in an interview with MIT Divest, "in order for the money to be put to work, there need to be local frameworks." Indeed, Zondervan is proposing one such framework: the Cambridge Green New Deal (GND), legislation to build a more equitable and sustainable future in Cambridge.

Funding groups to solve problems elsewhere should be no excuse for not changing behavior here and now, and businesses must keep their promises — MIT is no exception.

The main intent of the GND is to lower emissions from commercial buildings (including many owned and operated by MIT), which Zondervan says account for a majority of Cambridge's total emissions. In order to encourage commercial interests to lower their emissions, the GND will impose a fine of \$254 for every ton of CO2 emitted by new non-residential buildings.

The revenue from these fines will partially fund a second part of the GND, the

Green Jobs Ordinance, which will provide free green jobs training programs for lower-income residents of Cambridge. These jobs will include renewable energy development, building emissions reduction, electrification, and urban agriculture. In doing so, “we would use those funds to create economic opportunity for our low income and minority residents who are largely left out of the innovation economy,” Zonder-van said, adding, “It’s a double injustice, in that all this pollution is happening in their neighborhoods and then they’re not even getting the economic benefit of that.”

Therefore, through the GND, Zonder-van hopes to work toward eliminating both the economic and environmental injustices caused by the burning of fossil fuels. Despite the clear benefits of this proposal, some groups remain opposed. According to Zondervan, "The biggest barriers are the commercial interests, because they don't want to pay for their pollution ... And MIT is a big player in that interest group, so it's really important for the MIT students to be aware of the role that MIT is playing in that conversation."

For example, in a letter to Mayor Sid-
diqui, MIT and other institutions such as
Harvard and the Cambridge City of Com-
merce argued for amendments allow-
ing the use of carbon offsets to meet their
net-zero commitment instead of actually
reducing emissions. By buying carbon off-
sets, institutions can “lower” their carbon
footprint by financing carbon capture or
emissions reductions in other parts of the
world.

While carbon offsets are possibly part of the solution to climate change, they are also a method of greenwashing: presented as environmentally friendly while still emitting literal tons of CO₂. Carbon offsets allow institutions to continue to pollute

locally while claiming to lower their emissions. Funding groups to solve problems elsewhere should be no excuse for not changing behavior here and now, and businesses must keep their promises — MIT is no exception.

So why should you, a busy MIT student, care? Firstly, the planet's future is your future, too. The world at large must soon cease releasing greenhouse gas into the atmosphere, and as part of that world, Cambridge must do its part to reduce its own emissions. Additionally, the GND is also a way to right the wrongs done to historically marginalized communities by giving them more opportunities in the green new economy.

As a Cambridge resident, your voice is important. Without it, the GND may not get enough votes to pass. The main way to show support would be to email the city council directly at council@cambridgema.gov. It doesn't have to be much; as Zondervan said, "Even just a one-paragraph email explaining why you support the Green New Deal for Cambridge would be helpful."

If you'd like to learn more about the GND, MIT Divest is holding a teach-in with Councillor Zondervan next week; find out details and RSVP via our form (forms.gle/gnXaz42iGmKg2CJ6)! There is also a public hearing on November 22 about the GND, and we encourage you to sign up to comment over Zoom at the hearing if you'd like to make your thoughts heard. Further details are available on the Cambridge City Council website at tinyurl.com/gnd-hearing-11-22.

For more information on the Cambridge Green New Deal and future hearings, visit www.cambridgegnd.org.

Max Miller is a first-year undergraduate student and member of MIT Divest.

CORRECTIONS

In the previous issue of *The Tech*, solutions for puzzles in the fun pages were not put in. Here are the solution for last issue's puzzles: **November**, **Nutella**, **Trick or Treat**, **Nonetheless**, and **Next**, from top to bottom, left to right.

5	9	2	8	4	3	7	1	6
1	3	8	6	2	7	9	5	4
7	6	4	5	1	9	3	2	8
3	4	1	9	5	8	2	6	7
8	5	6	7	3	2	1	4	9
9	2	7	4	6	1	5	8	3
2	1	9	3	8	6	4	7	5
6	7	5	2	9	4	8	3	1
4	8	3	1	7	5	6	9	2

2	1	4	7	8	5	9	6	3
6	9	3	4	2	1	7	8	5
8	5	7	3	6	9	2	4	1
7	6	1	5	3	8	4	9	2
5	4	2	9	1	7	8	3	6
3	8	9	6	4	2	1	5	7
4	3	8	2	7	6	5	1	9
1	7	5	8	9	3	6	2	4
9	2	6	1	5	4	3	7	8

WEAR	LOTS	MIST
FORTE	AVOW	AREA
IN AWE	MEGA	GOWN
NASALS	SPRAY	INNS
STEREO	SEC	
	DOTES	CIVIC
TIKI	THAT	HAITI
EDICT	USA	ONSET
MELEE	MELT	SAME
PATHS	PLEAS	
	OTS	LATEST
CROC	APPRE	CIATE
LEAK	LUAID	RATON
ANTE	AMID	ERECT
NOSY	DARE	DARK

OPINION POLICY

Editorials are the official opinion of *The Tech*. They are written by the Editorial Board, which consists of Publisher Kristina Chen, Editor in Chief Wenbo Wu, Managing Editor William Xu, Executive Editor Chloe McCreery, and the opinion editor, a position that is currently vacant.

Dissents are the signed opinions of editorial board members choosing to publish their disagreement with the editorial.

Letters to the editor, columns, and editorial cartoons are written by individuals and represent the opinion of the author, not necessarily that of the newspaper. Electronic submissions are encouraged and should be sent to letters@tech.mit.edu. Hard copy submissions should be addressed to *The Tech*, P.O. Box 397029, Cambridge, Mass. 02139-7029, or sent by interdepartmental mail to Room W20-483. All submissions are due by noon four (4) calendar days before the date of publication.

Letters, columns, and cartoons must bear the authors' signatures, addresses, and phone numbers. Unsigned letters will not be accepted. *The Tech* reserves the right to edit or condense letters; shorter letters will be given higher priority.

Once submitted, all letters become property of *The Tech*, and will not be returned. Letters, columns, and cartoons may also be posted on *The Tech's* Web site and/or printed or published in any other format or medium now known or later that becomes known. *The Tech* makes no commitment to publish all the letters received.

Guest columns are opinion articles submitted by members of the MIT or local community.

TO REACH US

The Tech's telephone number is (617) 253-1541. Email is the easiest way to reach any member of our staff. If you are unsure whom to contact, send mail to general@tech.mit.edu, and it will be directed to the appropriate person. You can reach the editor in chief by emailing eic@tech.mit.edu. Please send press releases, requests for coverage, and information about errors that call for correction to news@tech.mit.edu. Letters to the editor should be sent to letters@tech.mit.edu. *The Tech* can be found on the World Wide Web at <http://thetech.com>.

GUEST COLUMN

MIT's lack of safety provisions nearly left me dead. But graduate workers are not disposable!

We demand health and safety protections in our union contract now!

By Lucas Baston

As a graduate worker in Chemical Engineering, I work on the exciting process of designing and synthesizing new zeolite catalysts to improve sustainable plastic processing. Coming from an undergraduate lab that worked with zeolites, I thought I knew what to expect when I first started out. However, over the years at MIT working with countless chemical and physical hazards in my lab, I have come to learn first hand how MIT systematically neglects graduate worker health and safety. This all came to a head when I found myself in an ambulance after a chemical exposure, unsure if I would live or die.

At MIT Medical, it was clear they were not at all equipped to treat me and didn't know what to do.

When I began my PhD project on zeolite synthesis, I knew that I would have to use hydrofluoric acid (HF), since it's the only chemical able to clean zeolite residue — basically glass — out of our synthesis reactor liners. HF is notoriously dangerous. It goes straight through skin and is volatile enough to be inhaled. HF seeks out and attacks calcium sources in the body and can dissolve bones, cause necrosis, and stop the heart. To make matters worse, symptoms from an HF exposure can take hours to appear, at which point it may be too late for treatment.

On day one of my research, I was shocked to learn that MIT refuses to provide our lab with basic protections for working with HF, despite years of graduate workers, our PI, and our excellent environmental health and safety (EHS) coordinator doing everything they could to request adequate provisions. Rather than having access to a dedicated HF hood, which is standard practice — including in my undergraduate lab, — workers in my lab are forced to use all acids in a single hood, which leads to dangerous overcrowding, risk of spills, and unnecessary HF exposure. This single hood is also located in a high-traffic lab, meaning that everyone working in the space is at risk when anyone works with HF. Our hood space is so cramped and facilities so lacking that we don't even have room to keep the hazardous waste solution from HF in a vented space. These dangerous conditions ultimately led to the incident that could have left me dead.

One of the weekly procedures in my work involves cleaning the zeolite synthesis liners

in a big bath of HF solution inside the aforementioned cramped fume hood. Then, we typically neutralize the HF acid in a base bath inside the fume hood. Periodically, we have to empty the base bath to replenish the potassium hydroxide base that gets depleted over time as it reacts with the HF.

On the day of the incident, following protocol and believing it was just dilute potassium hydroxide, I removed the base bath from the hood while dressed in standard lab PPE — without the extra layers of HF protective gear. While dumping the bath into the waste carboy, however, I noticed clouds of vapor forming. Because it was my first time emptying the bath, I thought this could be a normal occurrence. However, when I tested the pH, I found it was acidic, implying that the "base bath" had in fact become a big tub of HF solution! I was dealing with a potentially deadly exposure to HF outside of the fume hood.

I immediately evacuated the lab and called MIT EHS for assistance. EHS helped me confirm that the HF was properly contained but didn't ask or advise about my safety. Only after I asked did EHS instruct me to call MIT Medical to see if I should go in for urgent care for HF exposure. I was surprised. My past training and other members of my lab told me to go directly to urgent care or even call an ambulance. Nonetheless, I followed the EHS instructions.

At MIT Medical, it was clear they were not at all equipped to treat me and didn't know what to do. They finally decided to call an ambulance nearly three hours after my initial exposure. At the hospital, I was immediately seen by a doctor for monitoring and several tests. Chillingly, I was informed that any symptoms of HF exposure would have shown within 2 hours, well before I was sent to the ER. In other words, had symptoms started, MIT's unprepared and delayed response could have left me dead.

At each point in this terrifying, frustrating, and near-death experience with HF, I was let down by MIT's dangerously deficient safety provisions.

I am alive today *only* because I was extremely lucky that the concentration of HF wasn't higher.

Just a few days later, I started getting calls from the hospital and ambulance about

paying for the bill. I had to call MIT Occupational Health and Safety and was ultimately promised that the costs would be covered under workers' compensation. Yet, the collectors kept sending bills for months demanding payment. When I reached out again to MIT, I was bounced around between multiple people before being referred to an external adjuster. As I write this over four months after the exposure, I have received no confirmation or closure from MIT and can only assume it's been taken care of.

At each point in this terrifying, frustrating, and near-death experience with HF, I was let down by MIT's dangerously deficient safety provisions.

I want to be very clear: My PI and our EHS coordinator have done everything they can. Our EHS coordinator goes above and beyond to keep us as safe as possible given the constraints of what limited resources MIT provides to EHS. The problem is not with EHS, but rather with MIT systematically refusing to adequately fund and support EHS in carrying out its safety work. As it stands, EHS doesn't have the power or resources to install a fume hood.

MIT is cutting corners on our health and wellbeing!

Indeed, my incident is not isolated but reflects a systematic failure by MIT to provide even basic workplace safety measures — despite the fact that grad workers work with cancer-causing and reproductive toxins, lethal and flammable chemicals, and biological hazards every single day. In the past four months within the Chemical Engineering department alone, I am one of four graduate workers who has been hospitalized from chemical exposure. MIT has not yet hired a permanent EHS coordinator for the Chemistry department after the previous one left, leaving the safety of 300 graduate workers — as well as undergraduates and postdocs — up to a precarious system of temporary EHS workers doing their best to advise, support, and provide basic safety measures without any degree of stability. Another graduate worker, hospitalized after a potentially life-threatening chemical exposure during their assigned laboratory work, was forced by MIT to use their personal insurance to cover the expenses because they had earned a fellowship and MIT thus classified the injury as personal rather than work-related — leaving the grad worker with eight months of stressful calls with debt collectors. MIT simply chooses not to provide the funding, staff, or equipment to EHS to implement basic safety pre-

cautions, and it leaves graduate workers on their own when they're hurt on the job. MIT is cutting corners on our health and wellbeing!

But graduate workers are not disposable!

But graduate workers are not disposable! My incident with HF exposure has strengthened my conviction that we urgently need our union contract provisions in order to improve and codify workplace safety. If we had our proposed contract provisions, my lab's repeated request for additional acid hoods would have been enforceably addressed with the provision that we are guaranteed a safe work environment and facilities. With our contract proposal requiring MIT to develop and train EHS and Medical in chemical emergency response, I would have gotten emergency advice that wouldn't have risked killing me. With our proposal to empower EHS with appropriate staffing, equipment, and training, we could establish the basis for a truly proactive approach to preventing chemical exposure incidents in the first place. In my case, experts could have evaluated the safety of our lab procedure and implemented changes to better deal with HF waste disposal. And with guaranteed workers' compensation in a contract and a grievance procedure, I would have had a clear way to follow-up with EHS about getting bills paid.

Our union is proposing basic, common sense demands that will preempt avoidable safety incidents, keep researchers safe, and enable MIT researchers to safely carry out cutting edge research without being forced to put our lives on the line. And yet, the MIT administration is dragging its feet on coming to agreement on these basic proposals. MIT has no excuse to force us to conduct research in such unsafe conditions, and we demand that MIT affirm its commitment to graduate worker safety by agreeing to our health and safety contract proposals.

As graduate workers, we are united behind our contract demands to guarantee us equipment, supplies, facilities, and experts that ensure we have a safe workspace and assist our EHS coordinators in doing their jobs. Join us for our *We are not disposable!* town hall about health and safety on Tuesday, November 15, at 5:30 p.m. in 66-110, and join our Contract Action Team to help win our contract. Together, we can win the protections we deserve!

Lucas Baston is a third-year PhD candidate in Chemical Engineering and part of the MIT Graduate Student Union Contract Action Team.

101 THINGS TO DO BEFORE YOU GRADUATE

32. Take a stroll through Little Italy in the North End

Join the Arts department at *The Tech* and write restaurant reviews.

(And get reimbursed for your meal!)

Solution to Cinnamon

from page 3

9	6	7	3	2	8	4	1	5
1	3	8	4	5	9	6	7	2
4	5	2	1	6	7	9	8	3
8	2	4	5	1	6	3	9	7
3	7	5	2	9	4	1	6	8
6	9	1	8	7	3	2	5	4
7	8	3	6	4	1	5	2	9
5	1	9	7	3	2	8	4	6
2	4	6	9	8	5	7	3	1

Solution to Crispy Rice

from page 3

3	9	5	1	6	4	7	8	2
2	6	7	8	9	5	1	3	4
1	8	4	7	2	3	5	9	6
5	4	2	3	8	9	6	1	7
9	1	3	6	7	2	8	4	5
6	7	8	5	4	1	3	2	9
4	3	6	9	5	8	2	7	1
8	5	9	2	1	7	4	6	3
7	2	1	4	3	6	9	5	8

Solution to Illuminating

from page 3

	HAM	ALOE		LAPS
WHALE		LOAD		ARIA
AUDIT		ANTI		SEEM
FLASH		LIGHT		EASE
TATTOO		SOAR		
	DYED	RIBBON		
ASOF		ATOM		LEAVE
MAUI		LANES		ALAS
INTRO		LUMP		MELT
DESERT		TOES		
	WEAR	ELAPSE		
ECHO		CHANDELIER		
BLUR		TOME		DINER
BUNK		IDEA		GEEKS
SETS		CENT		END

Email us at join@tech.mit.edu

Join **The Tech**, You'd be a great **CATCH!**